

**SYSTEM AND METHOD FOR DETERMINING NETWORK DISCRETE  
UTILIZATION**

**Abstract of the Disclosure**

5           To evaluate a communications network, a plurality of  
network evaluation signals, or probative test packets, are  
selectively sent and received through the network.  
Responsive to these evaluation signals, network evaluation  
parameters are determined and stored. Queuing theory  
10       analysis, responsive to these parameters, determines the  
response time and throughput characteristics, including  
discrete capacity, utilization and performance, of the  
network. Calculation of the value of the network's discrete  
utilization involves the measurement of the network's  
15       average delay waiting for service, measurement of the  
network's standard deviation of delay waiting for service,  
calculation of discrete utilization from the ratio of these  
observed values, and then refinement of that calculation by  
proportionate factoring in instances of dropped samples as  
20       cases of one hundred percent utilization to arrive at a  
final figure for percent of network discrete utilization.